

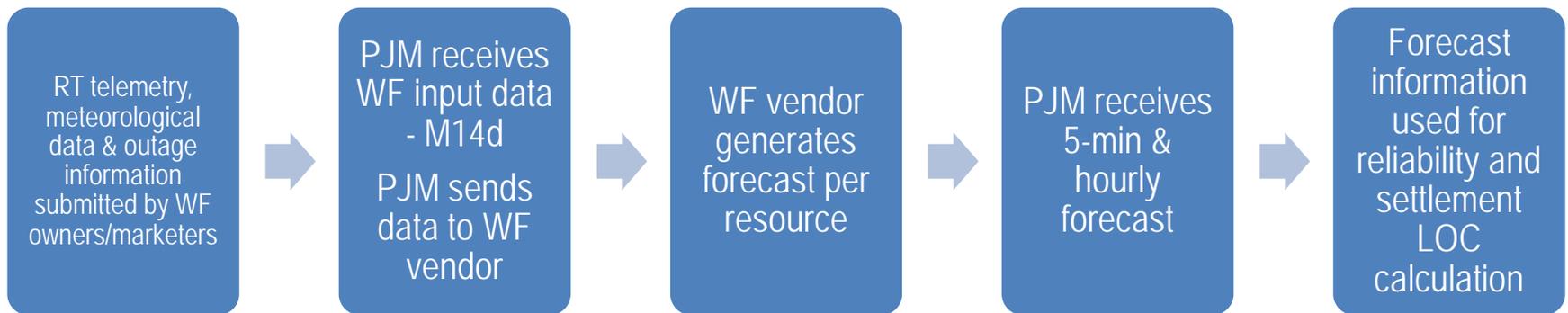
# Dispatchable Wind Resource LOC

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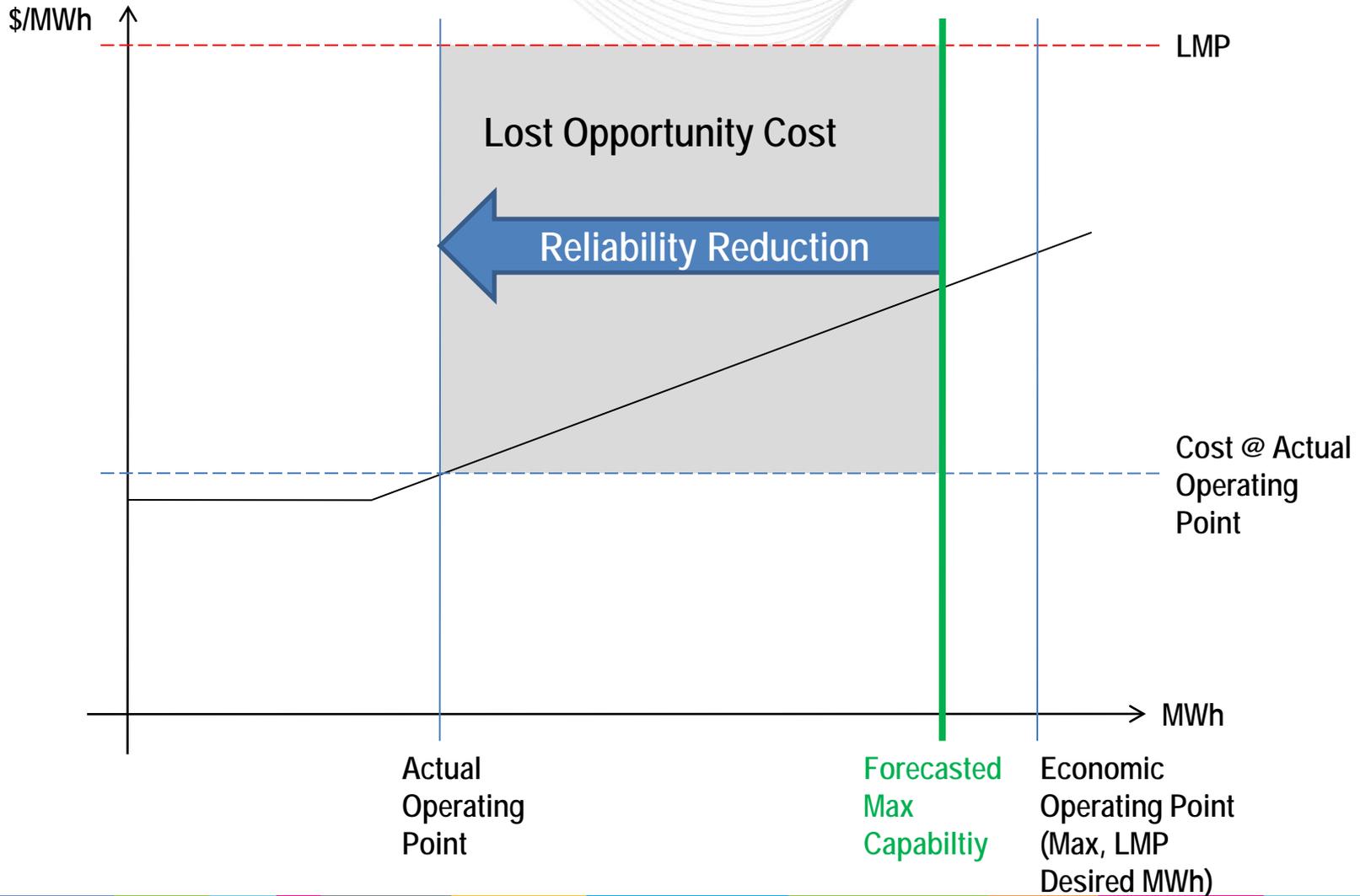
- Wind LOC issue was raised in Q4 2010
  - Wind LOC compensation is not comparable to traditional dispatchable resources
- Problem statement was drafted and Tariff changes were required
- IRTF updated its charter to accommodate the issue
- 5 IRTF meetings occurred to discuss wind LOC with consensus around PJM proposal
- MIC endorsed the IRTF proposal on July 12, 2011
  - 90 in favor, 45 opposed, 5 abstentions

- Currently PJM compensates all wind resources that are cleared in the DA Market for LOC upon request when they are reduced for reliability
- The intent of the methodology is to make these resources whole to their daily DA value
- This methodology was put in place when wind resources were not dispatchable as all are today
- It may not be ideal for wind resources that are dispatchable and following PJM's instructions
- Compensation is different than traditional dispatchable resources

- The new methodology from IRTF is analogous to what is done for traditional dispatchable resources
- The calculation will be the same except PJM will use the lesser of the forecasted capability or economic max or desired MW to determine the maximum output of the wind resource
- The forecasted capability will be determined by PJM using its own wind forecasting tool



- In the event of a technical issue resulting in an erroneous forecast, PJM and market participant will determine a mutually agreeable settlement value. Guidelines published in a PJM Manual
- The calculation is the difference between the actual operating cost based on the offer curve and the LMP times the reduced MWs
- LOC payments contingent on compliance with applicable requirements in Tariff, Operating Agreement and PJM Manuals



## Tariff – Attachment K, Section 3.2.3

(f-4) A Market Seller's wind generating unit that is pool-scheduled or self-scheduled and operating as requested by the Office of the Interconnection, the output of which is reduced or suspended at the request of the Office of the Interconnection due to a transmission constraint or other reliability issue, and for which the hourly integrated, real-time LMP at the unit's bus is higher than the unit's offer corresponding to the level of output requested by the Office of the Interconnection (as indicated either by the desired MWs of output from the unit determined by PJM's unit dispatch system or as directed by the PJM dispatcher through a manual override), shall be credited hourly in an amount equal to  $\{(LMP_{DMW} - AG) \times (URLMP - UB)\}$ , where:

LMP<sub>DMW</sub> equals the lesser of the PJM forecasted output for the unit or level of output for the unit determined according to the point on the scheduled offer curve on which the unit was operating corresponding to the hourly integrated real time LMP;

AG equals the actual hourly integrated output of the unit;

URLMP equals the real time LMP at the unit's bus;

UB equals the unit offer for that unit for which output is reduced or suspended, determined according to the real-time scheduled offer curve on which the unit was operating, unless such schedule was a price-based schedule and the offer associated with that price schedule is less than the cost-based offer provided for the unit, in which case the offer for the unit will be determined from the cost-based schedule; and

where  $URLMP - UB$  shall not be negative.

In the event the Office of the Interconnection experiences a technical problem or malfunction with its wind forecasting tool that results in an erroneous forecast for a wind resource during a period of time for which the wind resource is eligible for lost opportunity cost, the Office of the Interconnection and the Market Seller will attempt to reach a mutually agreeable forecast value for settlement purposes. If the Office of the Interconnection and the Market Seller do not come to mutual agreement on an acceptable forecast value, the Office of the Interconnection shall utilize the forecast value that it determines is appropriate.

- PJM recommends a conforming change for Operating Reserves so eligibility is contingent on compliance with applicable requirements in Tariff, Operating Agreement and PJM Manuals

- Endorsement at MRC
- MC
- FERC filing
- Targeting implementation Q1 2012

*Questions?*